

# **WILDLIFE HARVEST AND POPULATION STATUS REPORT**

## **RING-NECKED PHEASANT - 2003**

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### **2002-03 PHEASANT HUNTING SEASON**

In 2002, 11,148 pheasant hunters killed 32,508 pheasants statewide; a 10.2% decrease in hunters and a 36.3% increase in harvest from 2001. The estimated 2002 pheasant harvest decreased 27.2% from the 5-year average (1997-01; 44,654 average harvest; SD 11,713) and decreased 39.0% from the 10-year average (1992-01; 53,279 average harvest; SD 16,617). In 2002, pheasant hunters averaged 0.50 birds per day and 5.86 days per season compared to 0.45 birds per day and 4.28 days per season in 2001. Average season bag for 2002 was 2.92 birds which was a 52.1% increase compared to 2001. Regional harvest data for 2002 showed Northwestern Prairie had the highest estimated harvest (17,436 birds) and Mississippi Lowlands the lowest (136 birds; Figure 1). During 2002, Northwestern Prairie had the greatest number of hunters (5,207) with Mississippi Lowlands the lowest (154); hunters in Northwestern Prairie spent 6.54 days pheasant hunting compared to 6.47 days in the Mississippi Lowlands.

### **2003 POPULATION SURVEYS**

The Department annually cooperates with more than 400 rural mail carriers in mid-April to monitor the relative distribution of spring pheasant populations in northern and southeastern Missouri; these data also provide a relative with-in year distribution range map. The 2003 Rural Mail Carrier Survey (RMCS) reported 203 pheasants with an index of 0.55 birds per 100 miles (Figure 2).

The August Roadside Survey (ARS) monitors the number of pheasants and pheasant broods observed along standardized 30-mile routes, and has provided an reliable predictor of fall pheasant harvests. The 2003 statewide results for the number of pheasants observed show no change compared to 2002, a 26.6% decrease compared to the 5-year average (1998-02), and a 49.6% decrease from the 10-year average (1993-02; Table 1; Figure 3). Pheasant production in 2003, as determined by the number of broods observed, increased 46.2% compared to 2002, decreased 19.5% compared to the 5-year average (1998-02), and decreased 49.6% from the 10-year average (1993-02; Table 1). Regionally, Northern Riverbreaks had the highest index of

pheasants observed (4.30 birds/30 miles) and Mississippi Lowlands the lowest (0.20 birds/30 miles).

During 1988-01, there was a strong relationship ( $r=0.76$ ) between ARS and fall pheasant harvest indicating that ARS may often provide a relatively good predictor of harvest for the upcoming fall season (Figure 3). With this in mind, statewide 2003 pheasant hunting opportunities are expected to be about the same compared to the 2002 season, but still below the previous 5- and 10-year averages. Expect hunting opportunities to be best in the Northwestern Prairie, average in the Northern Riverbreaks, marginal in the Northeastern Riverbreaks, and least in the Mississippi Lowlands. Although increases were observed this year in the number of pheasants and pheasant broods in the Northern Riverbreaks and Northeastern Riverbreaks (Table 1), these relative trend values are still below 10-year averages. Hunting opportunities will vary depending upon severe localized weather events during the nesting and brood-rearing season, and the resulting effects of those weather conditions on habitat.

#### **PHEASANT RANGE EXPANSION PROGRAM**

The Department attempted to expand the pheasant range in 14 northern Missouri counties by relocating wild trapped birds during 1987-00; all 23 targeted sites have been completed (Table 2). Preliminary evaluation data indicates mixed results. Some release sites show relatively high numbers of crowing males along survey routes adjacent to the release sites, and show some birds expanding into surrounding areas as measured by rural mail carriers. Some releases show relatively good numbers of birds around the release site, but the birds have not become numerous enough to be observed by rural mail carriers in the spring. Other release sites show perpetually low numbers of birds that never disappear, but never establish thriving wild populations. Some releases were classified as failures for various reasons.

Table 1. The number of pheasants and broods observed along 30-mile routes in August by zoogeographic region, and relative change through time.

<b>Zoogeographic Region</b>	<b>2003</b>	<b>% Change From 2002</b>	<b>% Change From 5-Year Mean (1998-02)</b>	<b>% Change From 10-Year Mean (1993-02)</b>
<b>Northwestern Prairie</b>				
Total Pheasants	4.30	172.2	18.2	13.7
Production Index	0.60	-68.0	39.5	18.1
<b>Northern Riverbreaks</b>				
Total Pheasants	3.19	55.6	40.2	-9.3
Production Index	0.43	207.1	61.7	-5.9
<b>Northeastern Riverbreaks</b>				
Total Pheasants	1.72	24.6	86.6	-32.9
Production Index	0.17	21.4	57.4	-42.6
<b>Mississippi Lowlands</b>				
Total Pheasants	0.20	-53.5	-72.1	-82.1
Production Index	0.00	N/A	-100.0	-100.0
<b>STATEWIDE</b>				
Total Pheasants	1.50	0.0	-26.6	-49.6
Production Index	0.19	46.2	-19.5	-49.6

Table 2. Release sites and numbers of wild-trapped pheasants per release, 1987-00.

RELEASE AREA	COUNTY	COMPLETED	NO. BIRDS (M:F)	SOURCE OF BIRDS
Novelty	Knox	1989	226 (66:145) (15 unk. sex)	Squaw Creek NWR Nebraska
*Franklin Island	Howard	1989	178 (58:120)	Squaw Creek NWR Mar. Tem. Clair CA
New Cambria	Macon	1990	100 (30:70)	Kansas
*Ardmore	Macon	1990	138 (53:85)	Squaw Creek NWR Kansas
Hannibal	Marion	1990	123 (22:101)	Squaw Creek NWR Bilby Ranch CA Bob Brown CA
Smileyville	Marion	1990	97 (21:76)	Kansas
Kaseyville	Randolph Macon	1991	143 (34:109)	Nebraska
Clifton Hill	Randolph	1991	144 (34:110)	Nebraska
Bethel	Shelby	1991	143 (33:110)	Bilby Ranch CA Grand Pass CA Bob Brown CA
Glasgow	Howard Chariton	1991	141 (27:114)	Kansas
Salisbury	Chariton	1991	135 (25:110)	Kansas
Rothville	Chariton	1993	112 (19:93)	Bob Brown CA South Dakota
Mendon	Chariton	1993	135 (38:97)	South Dakota Mo. Private Land
Bogard	Carroll	1993	123 (33:90)	South Dakota
Roads	Carroll	1993	121 (23:98)	South Dakota Mo. Private Land
Plymouth	Carroll	1994	176 (23:153)	South Dakota Mo. Private Land
Regal	Ray	1994	219 (39:180)	South Dakota
Stet	Ray	1994	179 (54:125)	South Dakota
Braley	Clinton	1996	141 (28:113)	South Dakota
West Keystone	Clinton	1996	165 (27:138)	South Dakota
Starfield	Clinton	1996	173 (40:133)	South Dakota
Plattsburg	Clinton	1996	156 (19:137)	South Dakota
Wexford	Clinton	2000	116 (32:84)	South Dakota

\*Release sites classified as “failures.”

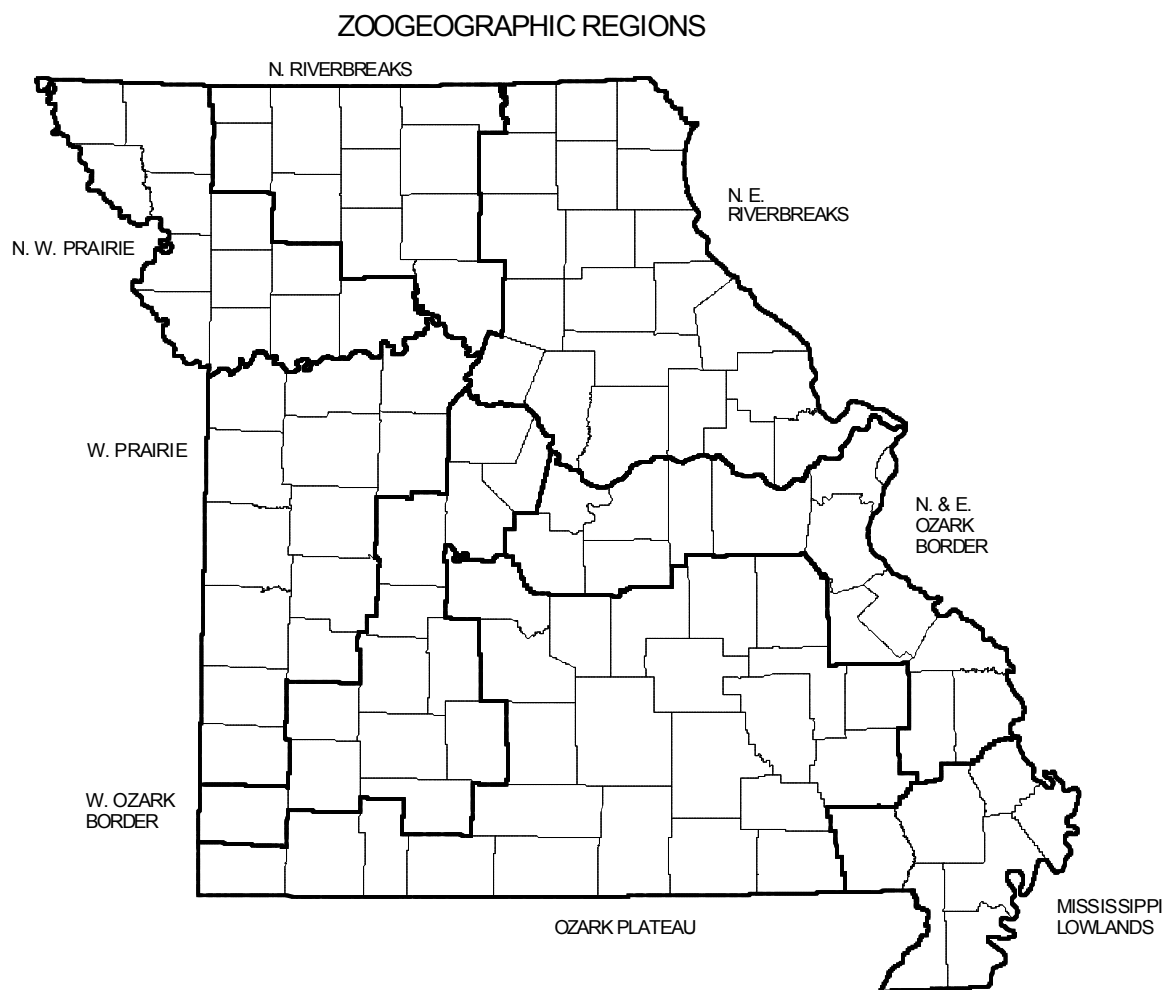


Figure 1. Zoogeographic Regions of Missouri.

# 2003 MISSOURI SPRING PHEASANT DENSITIES

## FROM RURAL MAIL CARRIER SURVEYS

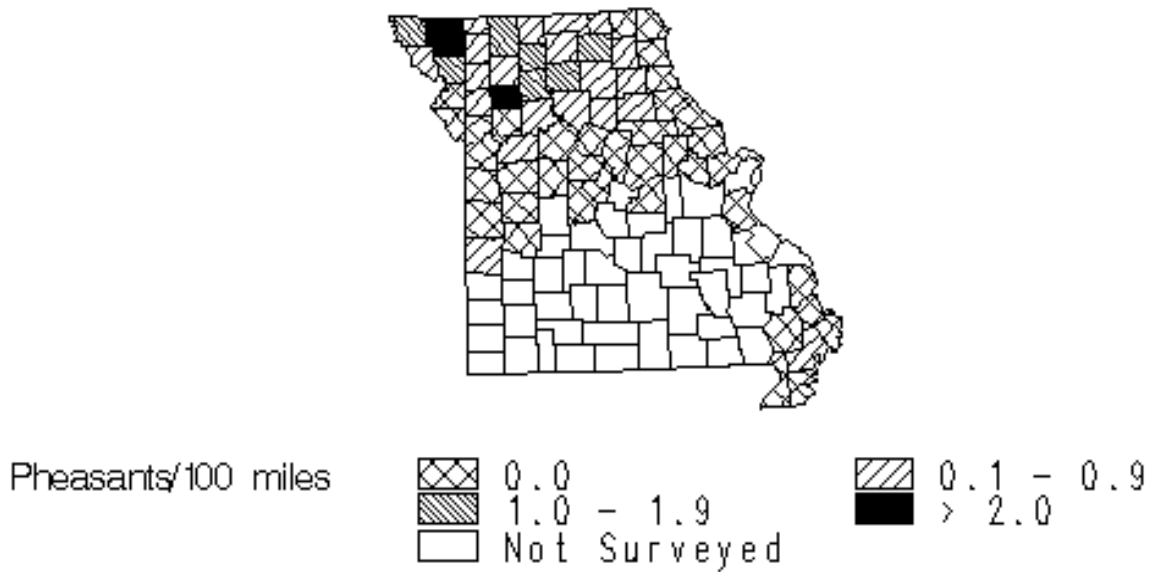


Figure 2. Relative distribution of Missouri spring pheasant populations derived from rural mail carrier surveys, during April 2003.

## Missouri Pheasant Trends

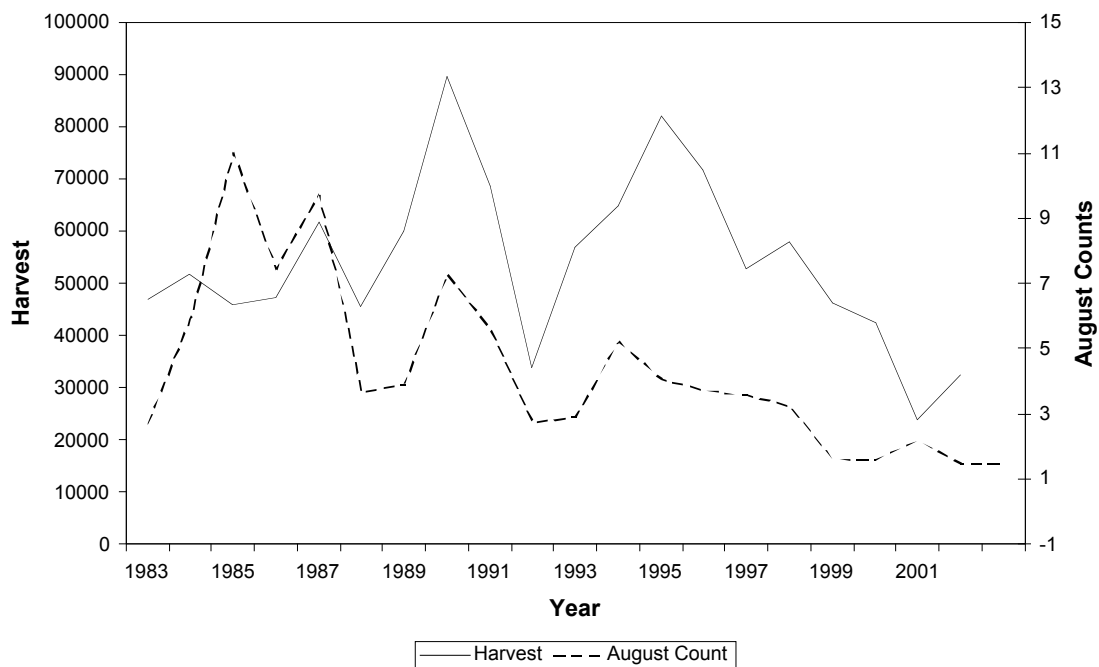


Figure 3. Estimated Missouri pheasant harvest and population trends from August Roadside Counts, 1983-03.